STATE MODEL IDLING LAW

I. BACKGROUND:

In May, 2004, at the National Idle Reduction Planning Conference in Albany, New York, representatives from the trucking industry identified the inconsistent pattern and design of state and local vehicle idle restriction laws as a barrier to greater implementation of idling control technologies. According to the trucking industry, the inconsistency and design of the laws make knowledge, understanding, and compliance an issue for truck drivers and owners. Approximately 25 states and local jurisdictions have idling laws. In response to their concerns the Environmental Protection Agency (EPA) hosted a series of five workshops.

The goal of the workshops was to develop a model idle reduction law that would foster greater compliance through common understanding of requirements and ease of implementation, and to raise awareness among the trucking industry, states, and environmental groups about each other's needs. For example, diesel emission reductions and health concerns on the part of states and environmental groups, and the need to rest comfortably and avoid fatigue-related vehicle accidents on the part of the trucking industry.

Existing idle reduction laws served as a starting point for discussion at the workshops hosted by EPA around the country in 2005. The workshops were held in Baltimore, MD; Atlanta, GA; Chicago, IL; San Francisco, CA; and Hartford, CT. Participants had an opportunity to discuss the provisions of these laws, add or modify them, and generally improve the framework of the laws. The language included in this model law represents the majority views of the participants.

EPA is not promulgating any type of regulation regarding vehicle idling. EPA's role is limited to that of a facilitator on behalf of the Federal government to respond to the trucking industry's request to better involve the trucking industry in the development of idle reduction laws and achieve greater compliance with such laws. This model law does not represent the views of EPA or any other federal department or agency concerning whether any state should, or should not, adopt the model law. Instead, the model law should be considered to be preliminary and informational in nature.

II. STATE IDLE REDUCTION MODEL LAW WITH DISCUSSION COMMENTS

General: The state model idle law is attached in its entirety in Section IV. In this section, we have divided the model into nine sections. We have also included a summary of some of the comments received at the public workshops to assist you with understanding the rationale supporting the section.

Section A: Purpose
Section B: Applicability
Section C: General Requirement for Load/Unload Locations
Section D: General Requirement for Vehicles
Section E: Exemptions

Section F: Conditional Exemptions
Section G: Auxiliary Power Units
Section H: Penalties

Section A: PURPOSE: The purpose of this law is to protect public health and the environment by reducing emissions while conserving fuel and maintaining adequate rest and safety of all drivers of diesel vehicles.

1. Discussion: Many participants expressed concern that current idle restriction laws were passed to reduce vehicle emissions or noise while ignoring other important benefits. These participants want the law to also recognize that reducing vehicle idling conserves fuel and potentially improves the truck driver's rest. Many felt that the trucking industry's needs or views were not represented in past idle restriction laws, and inclusion of their needs and views would improve the law's effectiveness.

Section B: APPLICABILITY: This law applies to commercial diesel vehicles which are designed to operate on highways (as defined under 40 CFR 390.5), and to locations where commercial diesel vehicles load or unload (hereinafter referred to as "load/unload locations").

1. Discussion: This model law only addresses diesel engines because the majority of long duration idling is from diesel vehicles. Participants generally agreed that the law should apply to diesel vehicles. Moreover, these participants point out that diesel engines emit more harmful emissions than gasoline engines. Some participants voiced the need to include gasoline engines as a growing segment of the vehicle idling population, especially with the increase in remote start technology which is likely to result in more light-duty vehicle emissions. States and local jurisdictions are welcome to modify this model to include gasoline engines. Some particpants expressed the concern that diesel delivery and service vans used in commercial applications where the source of much idling emissions. These participants preferred a weight classifications as a limiting factor, and recommended ranges from 8,500 pounds to 10,000 pounds. General agreement was reached on using the term "commercial diesel vehicles" as a means of including the majority of potentially long duration idling diesel vehicles.

Section C: GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS: No load/unload location owner shall cause vehicles covered by this rule to idle for a period greater than 30 minutes while waiting to load or unload at a location under their control.

1. Discussion: The objective of this section is to strike a balance between truck drivers and facility operators of load/unload locations. It would create a mutual responsibility to reduce truck idling. Participants expressed a strong desire to address the issue of idling while waiting at load/unload locations (e.g., distribution centers, retail stores, ports, and other similar facilities), where truck drivers will idle their engines while waiting to maintain cab comfort. Many truck drivers noted that it is often because of logistics problems at the load/unload locations that they are forced to wait, and therefore to idle, and they believe that they should not be penalized for idling in these cases. In fact, they

indicated that by holding the load/unload locations accountable for causing these delays, changes might be put into place which would result in less waiting, and therefore less idling, by trucks. States and local jurisdictions view long lines of idling trucks as a significant source of emissions, which is of concern especially if the load/unload location is near residential housing. Consequently, many participants wanted similar language encouraging load/unload locations to adopt technologies or behaviors to reduce idling. Load/unload location operators can improve their logistics system for processing truck loading and unloading, or offer alternatives such as a waiting area for truck drivers until they are ready to be processed. Note, the language in this section applies to facilities that "cause" idling while trucks are waiting to "load or unload". This language does not apply to truck stops where truck drivers are not usually loading or unloading, and where truck stop owners or operators are not "causing" a truck driver to idle. Reference to "permitting" idling was considered during the workshops but not included in this model law because many participants felt that truck stop owners or operators should not be responsible for truck idling which is not necessarily "permitted" by truck stop owners/operators and may be largely outside of their control.

Section D: GENERAL REQUIREMENT FOR VEHICLES: No owner or operator of a vehicle shall cause or permit vehicles covered by this rule to idle for more than 5 minutes in any 60 minute period except as noted in sections E and F, and except as provided in section C in the case of a load/unload location.

1. Discussion: Most idle restriction laws have a general time limit, but the rationale for the time limit is usually not explained or understood. In this case, it was noted that some exemptions found in other idling laws require no more than five minutes of engine idling to accomplish certain tasks. This section attempts to bundle some exemptions under the umbrella of a general time limit. For example, warming-up or cooling-down a diesel engine in moderate weather takes only about five minutes (in extreme weather conditions the truck owner or driver should invest in an alternative device to keep the engine and fuel warm, and should not rely on the main engine for this job). Similarly, the required pre-trip inspection requires an air brake pressure test which typically takes less than five minutes of engine idling. The rest of the inspection can be conducted without the engine operating. If a state or local jurisdiction would rather create specific exemptions for engine conditioning or pre-trip inspection, they can add these sections as additional exemptions. However, the majority of participants felt that fewer exemptions make for easier compliance and enforcement because it promotes greater consistency and understanding of the requirement.

Section E: EXEMPTIONS: Section D does not apply for the period or periods where:

1. A vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.

(A) Discussion: Participants recognized the need for this exemption as it involves a situation outside the truck driver's control. Participants recommended adding "on-

highway" to avoid allowing trucks queuing at a distribution center from claiming this exemption. Queuing and distribution centers are addressed under Section C: GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS.

2. A vehicle idles when operating defrosters, heaters, air conditioners, or installing other equipment solely to prevent a safety or health emergency, and not as part of a rest period.

(A) Discussion: This exemption was originally advanced during the workshops to allow idling for the safe operation of the vehicle during adverse weather conditions. However, many workshop participants felt that this language was too broad and created many loopholes, potentially allowing abuse. This subsection was therefore revised to require that the idling be necessary to prevent a safety or health emergency (e.g., school bus breaks down in cold weather and idles to keep its occupants warm). Idling while putting chains on tires is permitted under this exemption since this action is an example of "installing other equipment."

3. A police, fire, ambulance, public safety, military, other emergency or law enforcement vehicle, or any vehicle being used in an emergency capacity, idles while in an emergency or training mode, and not for the convenience of the vehicle operator.

(A) Discussion: Some participants in the conferences cautioned that this exemption could potentially be abused. Therefore, language was specifically inserted to ensure that the vehicle must be in an emergency or training mode in order to receive the exemption.

4. The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.

(A) Discussion: Similar to the emergency exemption above, workshop participants recommended language guarding against abuse. Therefore, the language indicates that idling must be "necessary" for the exemption to apply.

5. A vehicle idles as part of a state or federal inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.

(A) Discussion: During the workshops, there was general agreement on this exemption with language indicating that idling is required for the inspection.

6. Idling of the primary propulsion engine is necessary to power work-related mechanical or electrical operations other than propulsion (e.g., mixing or processing cargo or straight truck refrigeration). This exemption does not apply when idling for cabin comfort or to operate non-essential on-board equipment.

(A) Discussion: Workshop participants agreed that "power take-off" operation is a valid exemption. Participants wanted to guard against using this exemption to operate air conditioning, heating, microwaves, or televisions as an electrical operation (all of which

would be considered non-essential on-board equipment), so it was necessary to add the last sentence.

7. An armored vehicle idles when a person remains inside the vehicle to guard the contents, or while the vehicle is being loaded or unloaded.

(A) Discussion: While many would consider this a common sense exemption, like the emergency vehicle exemption above, many participants felt it is important to articulate these exemptions to ensure appropriate interpretation and enforcement by law enforcement officials.

Section F: CONDITIONAL EXEMPTIONS: Subsection D does not apply for the period or periods where:

1. A passenger bus idles a maximum of 15 minutes in any 60 minute period to maintain passenger comfort while non-driver passengers are onboard. The exemption expires 5 years after implementing a state financial assistance program for idle reduction technologies or strategies.

(A) Discussion: Participants felt that passenger buses needed to be able to keep passengers warm or cool while on-board. Some participants argued for 30 minutes as the time needed to condition the bus, but the majority felt that this was excessive and that 15 minutes was sufficient. Others wanted temperature ranges, but the majority felt that ambient temperatures did not reflect interior temperatures, which may be affected by solar intensity. Almost everyone agreed that the driver should not be allowed to idle just for his/her own needs, but that passengers had to be on-board. The issue of a financial assistance program is addressed in Section V.

2. An occupied vehicle with a sleeper berth compartment idles for purposes of air conditioning or heating during rest or sleep period, until 5 years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

(A) Discussion: All participants felt that this model law should balance the needs of states and industry. In a common theme for the conditional exemptions with a sunset provision, participants agreed that both the trucking industry and states have responsibilities towards reducing idling. Simply passing a state law and placing the financial burden on the trucking industry was not enough, according to trucking industry participants.

The compromise advanced in this provision is for both sides to contribute towards reducing idling. The trucking industry would evaluate, select, and purchase an idle reduction technology; and the state would assist the trucking industry with the purchase by creating a financial loan program, such as those that currently exist in Minnesota, Arkansas, Pennsylvania, and Oregon. These states, as well as others, are assisting the trucking industry with purchasing idle reduction technologies through loans, and these states are in the position to say that since they are helping the industry, the industry should not be idling during their rest or sleep period while in their state. Since this issue

is a matter for states to decide in the context of various competing priorities, the EPA does not take a position on whether exemptions should be made conditional on the enactment and implementation of a state financing program. This is inherently a matter for states to decide in their legislative process.

Under the provision, the sleeper berth exemption would expire in states that provide financial assistance five years after the assistance program was created and operational. Five years was selected as the sunset time period because it would allow sufficient time for trucking companies to evaluate the wide range of idle reduction technology options available, arrange for financing as needed, purchase, and install technologies. More information about different types of loan programs is provided in Section V. Under this provision, if a state offers no financial assistance, in any form, then the sleeper berth exemption could stay in effect. The theory underlying this provision is that while laws may serve as a deterrent to idling, the effectiveness of a law may be enhanced with some kind of financial program to assist with the purchase and deployment of an idle reduction technology. This view was not shared by all workshop participants. Some states argued that since the idle reduction devices pay for themselves over time, the industry should simply buy them. Others argued that this view should take into account the fact that idle reduction devices (e.g., auxiliary power units) may require significant up front capitalization. For example, in cases, where an average truck owner-operator nets only $25,000 in annual income, the upfront $7,000 cost of an auxiliary power unit may prevent the purchase an idle reduction device even though the unit will pay for itself in a relatively short period.

In addition, financial assistance can increase the number of available idling reduction technologies which are not directly funded by vehicle owners. EPA has awarded grants to study, evaluate, and deploy idle reduction systems in many states, and estimates that the Agency's grant awards of $6.5 million has leveraged $15 million in additional resources. Conversely, it can be argued that without some kind of assistance program (e.g., low-interest loan program), truck owners may simply pay the fine as a cost of doing business and take their chances on lack of enforcement.

EPA does not have a formal position with respect to the type of financial assistance that states may want to provide, or with respect to the eligibility criteria for any financial assistance program. Participants in the workshops indicated that a loan program could move states and industry closer towards achieving the goals of emission reductions and fuel conservation. It was argued that, by offering a loan instead of a grant, states are in a position to recoup their expenditures and earn goodwill in the trucking industry. One often cited concern of the trucking industry is that financial assistance programs not be limited to in-state trucking companies only. The industry argued that a loan program should apply to any trucking company traveling through the state.

3. An occupied vehicle idles for purposes of air conditioning or heating while waiting to load or unload, until 5 years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

(A) Discussion: Many trucking industry representatives blamed their idling on facility owners. This conditional exemption recognizes the need to deploy idle reduction technologies or strategies (e.g., waiting room) for trucks that idle while loading/unloading. Some participants believed that queue idling requires a joint truck driver-facility owner response. Consequently, Sections C (General Requirement for Load/Unload Locations) and H (Penalties) address location owners

As with other conditional exemptions, EPA does not take a position as to whether conditional exemptions for idling at load/unload facilities should be enacted by state governments and believes that the matter of state financing is inherently a matter for individual states to decide.

4. A vehicle idles due to mechanical difficulties over which the driver has no control; PROVIDED that the vehicle owner submits the repair paperwork or product receipt (by mail; within 30 days) to the appropriate authority verifying that the mechanical problem has been fixed.

(A) Discussion: Many participants felt that simply exempting a vehicle for mechanical problems was open for abuse because of the difficulty of verifying the claim without potentially harming the truck engine if the claim was accurate. The solution, as recommended by the participants, is to have the truck owner/driver submit the proper paperwork indicating that the mechanical problem was fixed to dismiss the ticket. This approach is already used for similar types of infractions. Some participants cited the additional administrative burden, but the situations where a truck must remain idling (e.g., problem with alternator) are so rare that it would not be overly burdensome to manage.

Section G: AUXILIARY POWER UNITS

(1) Generally, operating an auxiliary power unit or generator set as a means to heat, air condition, or provide electrical power as an alternative to idling the main engine is not an idling engine, per se.

(A) Discussion: Some truck drivers stated that they received idling citations for using their auxiliary power unit. They requested that the model law clarify that an idle reduction technology should be exempt from idling laws since its use is to reduce main engine idling.

(2) Operating an auxiliary power unit or generator set on all model year 2006 or older commercial diesel vehicles is permitted. *[Reserved for possible inclusion of criteria for APU use on 2007 and subsequent model year commercial vehicles]*

(A) Discussion: The emissions of an APU are less than a model year 2006 or older diesel vehicle so states should encourage and create financial incentives for the use of APUs on those trucks. As for 2007 and subsequent model year diesel vehicles, some states

provided information that APUs will emit more than 2007 and subsequent model year engines. Some states argue for requiring the APUs to meet a more stringent emissions standard equivalent or greater than the 2007 and subsequent model year engines.

Section H: PENALTIES. The owner and/or operator of a vehicle, and/or the owner of a load/unload location, that is in violation of this law is responsible for penalties as follows.

(1) First offense: Warning ticket issued to vehicle driver and owner, and where applicable, the load/unload facility owner.

(2) Second and subsequent offenses: $150 citation is issued to the vehicle driver; and/or, $500 citation issued to the registered vehicle owner or load/unload location owner.

Discussion: Participants felt a warning should first be given, especially if a state is beginning to enforce a state idling law. If the state has a long and well-established history of enforcement in this area, then the warning ticket may not be necessary. Workshop participants indicated that utilizing a warning ticket provides a good opportunity to educate the truck owner about the law and any state financing program, if available. As for the second and subsequent offenses, many states have their own protocol on issuing tickets, and the model language above simply represents some agreement by participants on the amounts. Some states felt the need to penalize the truck owner for a perceived economic gain in idling. Trucking industry participants expressed the desire that states understand that owner operators are less likely to absorb high fines and remain economically solvent, while larger companies could build in these fines as a cost of doing business.

III. ISSUES FOR FURTHER CONSIDERATION

A. Enforcement: We welcome feedback on ways to structure a clear and consistent state enforcement program, specifically:

1. Whether or not to create an enforcement branch with dedicated responsibility over idle restriction laws (e.g., parking enforcement branch).
2. How to best train enforcement officers about understanding and interpreting the specifics of idle restriction laws.
3. How best to enforce idle restriction laws:

    (A) Complaint-based (initiated by telephone call from public)
    (B) Enforcement blitz (enforcement campaign designed to garner media attention)
    (C) Ongoing Proactive Enforcement (enforce on an on-going basis)
    (D) Signage and Education Only (rely on good faith compliance)

B. Education: We welcome feedback on ways to better educate the trucking industry and states about idle restriction laws, specifically:

1. How to develop a communications strategy and media campaign to educate the

trucking industry and states about the existence and specifics of the idle restriction laws in each state or locality.
2. Where to place idle restriction signs.

C. Consistent State and Local Laws: We welcome feedback on achieving consistent idle restriction laws, specifically:

1. Soliciting information concerning possible benefits to be achieved in having statewide uniformity in idle reduction laws, including any offsetting costs or disadvantages to this uniformity.

D. Financial Assistance Program: We welcome feedback on establishing financial assistance programs, specifically:

1. Should financial assistance programs apply to small businesses only, or should it include any trucking company?
2. How should the financial assistance program be structured to allow a state to take advantage of "sunsetting" some of the conditional exemptions?
3. Should states ensure that all trucks (and passenger buses) operating in their state, not only those domiciled in the state, are eligible for funding?

E. Auxiliary Power Units: We welcome feedback on APUs, specifically:

1. How do we determine if APUs emit more pollutants than 2007 and subsequent model year diesel engines, as compared to APUs and MY 2006 vehicles?
2. What do we know today, or what hypotheses can be made regarding emission differences between MY 2006 and earlier APUs, and those meeting upcoming nonroad standards, compared with MY 2007 and subsequent model year diesel engines?

IV. STATE IDLE REDUCTION MODEL LAW

(a) PURPOSE: The purpose of this law is to protect public health and the environment by reducing emissions while conserving fuel and maintaining adequate rest and safety of all drivers of diesel vehicles.

(b) APPLICABILITY: This law applies to commercial diesel vehicles which are designed to operate on highways (as defined under 40 CFR 390.5), and to locations where commercial diesel vehicles load or unload (hereinafter referred to as "load/unload locations").

(c) GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS: No load/unload location owner shall cause vehicles covered by this rule to idle for a period greater than 30 minutes while waiting to load or unload at a location under their control.

(d) GENERAL REQUIREMENT FOR VEHICLES: No owner or operator of a vehicle shall cause or permit vehicles covered by this rule to idle for more than 5 minutes in any 60 minute

period except as noted in sections (e) and (f), and except as provided in section (c) in the case of a load/unload location.

(e) EXEMPTIONS: Section (d) does not apply for the period or periods where:

(1) a vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.

(2) A vehicle idles when operating defrosters, heaters, air conditioners, or installing other equipment solely to prevent a safety or health emergency, and not as part of a rest period.

(3) a police, fire, ambulance, public safety, military, other emergency or law enforcement vehicle, or any vehicle being used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.

(4) the primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.

(5) a vehicle idles as part of a state or federal inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.

(6) idling of the primary propulsion engine is necessary to power work related mechanical or electrical operations other than propulsion (e.g., mixing or processing cargo or straight truck refrigeration). This exemption does not apply when idling for cabin comfort or to operate non-essential on-board equipment.

(7) an armored vehicle idles when a person remains inside the vehicle to guard the contents, or while the vehicle is being loaded or unloaded.

(f) CONDITIONAL EXEMPTIONS: Subsection (d) does not apply for the period or periods where:

(1) a passenger bus idles a maximum of 15 minutes in any 60 minute period to maintain passenger comfort while non-driver passengers are onboard. The exemption expires 5 years after implementing a state financial assistance program for idle reduction technologies or strategies.

(2) an occupied vehicle with a sleeper berth compartment idles for purposes of air conditioning or heating during rest or sleep period, until 5 years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

(3) an occupied vehicle idles for purposes of air conditioning or heating while waiting to

load or unload, until 5 years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

(4) a vehicle idles due to mechanical difficulties over which the driver has no control; PROVIDED that the vehicle owner submits the repair paperwork or product receipt (by mail; within 30 days) to the appropriate authority verifying that the mechanical problem has been fixed.

(g) AUXILIARY POWER UNITS

(1) Generally, operating an auxiliary power unit or generator set as a means to heat, air condition, or provide electrical power as an alternative to idling the main engine is not an idling engine, per se.

(2) Operating an auxiliary power unit or generator set on all model year 2006 or older commercial diesel vehicles is allowed. *[Reserved for possible inclusion of criteria for APU use on 2007 and subsequent model year commercial vehicles]*

(h) PENALTIES: The owner and/or operator of a vehicle, and/or the owner of a load/unload location, that is in violation of this law is responsible for penalties as follows.

(1) First offense: Warning ticket issued to vehicle driver and owner, and where applicable, the load/unload facility owner.

(2) Second and subsequent offenses: $150 citation is issued to the vehicle driver; and/or, $500 citation issued to the registered vehicle owner or load/unload location owner.

V. FINANCIAL ASSISTANCE PROGRAMS

For virtually every trucking company, fuel is the second largest expense behind labor. Numerous technologies are currently available to help these companies reduce fuel consumption from idling, however one of the major barriers to their widespread adoption is a lack of investment capital. In order to increase compliance with state idle restriction laws, especially among small and medium-sized trucking companies, participants at EPA's workshops generally agreed that states should consider developing financial assistance programs aimed at providing capital to trucking companies for the purchase of idle reduction technologies. In offering such financial assistance programs, workshops participants also believed that it would be important for states to open their programs not only to trucking companies domiciled in their state, but to all trucking companies operating in their state, since many out-of-state trucks will have to comply with the state's idle restriction law. Opportunities for financial assistance programs include developing loan programs, performance contracting arrangements, and grants.

<u>Loan Programs</u>

- States could offer loans with terms that are more attractive than currently available commercial loans (e.g., low-interest rates, flexible repayment terms).
    - Some states have existing loan programs through their small business or environmental offices that may be able to support idle reduction technologies.
    - Currently, at least two states, Arkansas and Minnesota, offer loans for idle reduction technologies (AK: http://www.adeq.state.ar.us/poa/businessasst.htm and MN: http://www.pca.state.mn.us/programs/sbomb_loan.html).
    - Another state, Oregon's Lane Regional Air Pollution Authority (LRAPA), provides low-cost lease-to-own or no-interest arrangements on auxiliary power units for truckers (http://www.apucentral.com/).

Performance Contracting Arrangements

- States could consider setting up programs in which they provide idle reduction equipment to trucking companies with no up-front cost to the company. The company would then pay for the equipment by returning a portion of its savings from reduced fuel consumption to the state each month. This type of arrangement would eliminate the problem caused by lack of access to investment capital that is a problem for many small- and medium-sized trucking companies. EPA's SmartWay Transport Partnership is currently piloting this type of program.

Department of Transportation Programs

- Congestion Mitigation and Air Quality (CMAQ) Improvement program which provides funds to state DOTs, metropolitan planning organizations, and transit agencies to invest in projects that reduce regulated criteria air pollutants from transportation-related sources. This program has funded several idle-reduction projects throughout the country and there are several applications pending for future CMAQ-funded idle-reduction projects (http://www.fhwa.dot.gov/environment/cmaqpgs/index.htm).
- Section 129 Loans which allow states to use regular federal-aid highway apportionments to fund loans for projects with dedicated revenue streams (http://www.fhwa.dot.gov/innovativefinance/).
- State Infrastructure Banks which provide revolving infrastructure investment funds for surface transportation projects that are established and administered by states (http://www.fhwa.dot.gov/innovativefinance/sib.htm).
- Transportation Infrastructure Finance and Innovation Act which allows DOT to provide direct credit assistance to sponsors of major transportation projects (http://tifia.fhwa.dot.gov/)